



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,250	03/27/2001	Arthur H. Ozaki	020699002900US	2094
37490	7590	04/09/2004	EXAMINER	
CARPENTER & KULAS, LLP 1900 EMBARCADERO ROAD SUITE 109 PALO ALTO, CA 94303			YENKE, BRIAN P	
		ART UNIT		PAPER NUMBER
		2614		8
DATE MAILED: 04/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/819,250	OZAKI ET AL.
	Examiner	Art Unit
	BRIAN P. YENKE	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on Amendment (26 March 2004).  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 5,6,14 and 15 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 5,6,14 and 15 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 05 December 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. After careful review of the present application the examiner is providing a new Non-Final Rejection. The examiner regrets any inconvenience caused to the applicant.

### *Drawings*

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "142" has been used to designate both an input to Filter 128 and output from A/V switch 126 (Fig 1). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 and 14-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Isoe, US 5,671,019 in view of applicant's admitted prior art (AAPA) and Rinaldi et al., US 5,671,019.

In considering claim 5 and 14,

- a) *the claimed an image display device is met by display 12 (Fig 3).*
- b) *the claimed a first tuner... is met by 1<sup>st</sup> tuner 2 (Fig 3).*

- c) *the claimed a second tuner...* is met by 2<sup>nd</sup> tuner 3 (Fig 3).
- d) *the claimed a video switching subsystem for receiving the first video formatted signal and the second video formatted signal and selectively outputting* is met by switching circuit 4 and switch 13 (Fig 3)
- e) *the claimed a microprocessor for sending a timing signal* is met by control processor 4 which controls the switching 4 and switch 13 (Fig 3), where the main is displayed in a predetermined main region and the 2<sup>nd</sup> signal is displayed in a ticker tape position and a smaller viewing portion of the display (Fig 4b).
- f) *the claimed wherein the first and second video signals include audio and video component* is my tuner 2 and tuner 3 which receives the video signals via antenna 1.
- g) *the claimed an audio/video switch configured to receive the first and second video signal from the first and second tuners, respectively* is met by switching circuit 4 and switch 13 (Fig 3)
- i) *the claimed a video mixer/switch* is met by 1<sup>st</sup> compositing circuit 9 and 2<sup>nd</sup> compositing circuit 11 (Fig 3).

However, Isoe, does not recite the color formats of the received or the displayed signal (limitations d, e, g, h, and I regarding YC and YUV into RGB), nor does Isoe disclose stitching the audio and video components of the first and second video signals, and to output a first stitched first video signal, a stitched second video signal, a Y formatted signal and a C formatted signal. Isoe discloses an invention which is able to display a full screen image (channel a) along with the captioning for A (Fig 4a) or the

full screen A along with the captioning for channel B (Fig 4b). Isoe discloses the reception of a composite video signal via tuners 2 and 3 (which can be YUV or YcrCb) and the reception of VTR signal via terminal 5 which is a component video signal which can either be YCrCB or RGB formatted color signal.

The examiner relies on the applicant's own disclosure, which discloses that audio/video switch 126 (limitation g)(page 5, lines 2-3) along with mixer 134 (limitation i) (page 5, lines 26-28) are conventional in the art. Thus it is known to receive to signals via an A/V switch and output a first stiched audio/video signal, a Y/C signal (derived via a comb filter) and output a 2<sup>nd</sup> stiched audio/video signal. And it is also known to output via a mixer a desired signal (i.e. RGB) from a variety of color inputs (i.e. Y/C, YUV) as disclosed by applicant.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Isoe which discloses a PIP system where the user can view channel A on a full screen, while also viewing channel B via subscreen (i.e. ticker tape), by converting the receiving signals into proper format (stiched audio/video) and color formats (i.e. Y/C, YUV, RGB) in order to process the received signals via available/conventional circuitry and output the signals into the appropriate display format (i.e. RGB).

In addition to the applicant's own disclosure (AAPA), the examiner further supports the obviousness of changing color formats, by relying on Rinaldi, US 6,327,002 which discloses the conversion of one color format to another format. Rinaldi et al., US 6,327,002, discloses receiving an input signal either of the NTSC, PAL or

SECAM standard (which includes the YUV, YcrCb color formats) and converting the receiving signal into a desired RGB (Fig 1), YUV (Fig 2) or YC formats (Fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Isoe and AAPA which discloses a PIP system which receives broadcast channels and a VTR signal which may vary in color formats, with Rinaldi, by converting the received signals into a color format which matches that of the display or the particular output device (i.e. YUV, Y/C or RGB).

It is noted by the examiner, that a received signal can be converted, reconverted into multiple respective color formats, however the conversion of a signal(s) into an arbitrary color format(s), and particularly where the respective color formats are again converted into a similar display color format (i.e. RGB) is not patentable, since the result of this conversion, produces no unexpected results.

In considering claims 6 and 15,

- a) *the claimed a picture-in-picture system for outputting a picture-in-picture signal* is met by partial-screen image processor 8 (Fig 3)
- b) *the claimed format switch* is met by 1<sup>st</sup> compositing circuit 9 and 2<sup>nd</sup> compositing circuit 11 (Fig 3).

However, Isoe does not disclose the types of color formats (i.e. YUV, RGB). Please see claim 5 above, for discussion on color formats.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—please refer to newly cited references on attached form PTO-892.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

General information brochures can also be obtained in person from the Patent Search Room located in Crystal Plaza 3, Room 1A03, 2021 South Clark Place, Arlington, VA 22202.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and

applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS). PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.

  
BRIAN P. YENKE  
Primary Examiner  
Art Unit 2614

  
B.P.Y.  
05 April 2004